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Application No. 10/822,642

REMARKS

Claims 20, 25, 26, 31-39, 41, and 43-48 are pending. By this Amendment, no claims have been amended, canceled, or added.

All pending claims stand rejected. Applicants respectfully request reconsideration of the rejections based on the following analysis and analysis presented in previous responses.

Claims 20, 25, 26, 39, 41, and 43-48 were rejected under 35 USC 112, second paragraph, as being indefinite.

Regarding claim 20, Examiner alleged that there is confusing antecedent basis for "dopant compositions" in the last two lines when line 5 already refers a "dopant." With all due respect, Applicants maintain that there is no confusion antecedent basis. Simply, each of the coating and core structure have different dopant compositions with the core comprising "a dopant comprising a metal element that is not a rare earth element" and with the coating comprising either no dopant, a dopant that is a rare earth metal element, a different concentration of the same dopant than that used in the core, or a different metal element that is not a rare earth element than that used in the core or a combination of these. This language would be abundantly clear to a person of ordinary skill in the art, who would have a good understanding of optical glasses and their compositions. Applicant respectfully notes that the Examiner has failed to establish a case of *prima facie* indefiniteness since the Examiner has not considered the level of skill of a person of ordinary skill in the art.

Regarding claims 41 and 43, Examiner maintained that it is unclear whether density is interpreted as a value "between" 0.05 and 0.40 or changes by starting out as 0.05 and reaching 0.40. In the Response to Arguments, Examiner indicated that claim 20 recites "within the range," and such language is missing from claims 41 and 43. With all due respect, Applicants maintain that this language is clear. According to the Webster's Collegiate Dictionary attached

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in the previous response, "from" indicates the starting point of a parameter. One of ordinary skill in the art would recognize that 0.05 and 0.40 constitutes a range without explicitly stating so and that claims 41 and 43 recite that the average density is a factor selected within that range. Furthermore, Examiner's interpretation that the average density might change from 0.05 to 0.40 is unreasonable. Examiner has failed to interpret the claims in light of the specification and in light of common knowledge and language. The average density is not a parameter that changes from one value to another. With all due respect, it is unimaginable that any person of ordinary skill in the art would not clearly understand this language. The Examiner asserts that rules of claim construction require a strained reading of the claims. With all due respect, the Examiner is unnecessarily using supposed legal formality over common sense and a plain reading of the language as would be performed by a person of ordinary skill in the art. Applicants maintain that this language is clear and respectfully request withdrawal of this rejection.

Claims 20, 25, 26, 39, 41, and 44-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hicks (US 4,749,396) in view of Miller (US 4,501,602), Berkey (US 4,684,384), and Kobayashi (US 3,957,474). With all due respect, Applicants submit that previously presented claims 20, 25, 26, 39, 41, and 44-48 are not *prima facie* obvious over Stark in view of Miller, Berkey, and Kobayashi.

All of the references Hicks, Miller, Berkey, and Kobayashi alone or combined fail to disclose the features of the claimed invention, including for example, "the coating having an average density that is a factor within/in the range from about 0.02 to about 0.55 of the fully densified mass density," "the coating comprises particles having an average primary particle diameter of no more than about 500 nm," and "the coating and the core structure have different dopant compositions," as recited in independent claim 20.

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As disclosed in the instant specification, these features result from a certain combination of variables—particle composition, deposition conditions, and/or particle size. See specification, for example, at page 60, lines 27-29. Hicks is directed to a very general method of forming an optical fiber perform without disclosing any specifics as to the characteristics of the perform resulting from the process, for example, the average density of the coating and the average primary particle diameter of the coating. None of the other references addresses these features. In fact, Examiner cited Miller for the alleged use of rare earth and non-rare earth elements and Berkey and Kobayashi for the alleged use of lasers.

Regarding the feature “the coating and the core structure have different dopant compositions,” Examiner misconstrued Hicks. Applicants emphasize that independent claims 20 and 31 require, at the very least, an optical fiber preform comprising an insert within a preform structure, and the insert comprises a coating over a core structure. Examiner alleged that Hicks teaches adding dopants to the core rod in col. 3, lines 58-col. 4, line 4, discloses applying a “CVD layer” to the core without a statement as to its composition in col. 4, lines 55-60, and “CVD” created silica “can be doped” in col. 2, lines 3-10. Applicants point out that the first two statements apply to the insert, but the last statement applies to the preform structure through which the insert is inserted. In col. 2, lines 3-10, Hicks discloses “...a starting member, such as a hollow tube, is coated, either on its interior or exterior surfaces, with high purity particular silica reaction products [that] can be doped to increase or decrease its index of refraction as appropriate, to define a coated tube which is consolidated and collapsed to define the preform.” The coated hollow tube (12) is the preform structure through which the insert (10) is inserted. Examiner’s statements establish only that the core rod might have dopants, the CVD layer over the core has an undisclosed composition, and the preform structure can be doped BUT DOES NOT establish different compositions for the coating and the core. More specifically, Hicks teaches an optical fiber preform that following the joining of the rod with the tube-like member

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has a relatively sharp step in index of refraction. See column 4, lines 36-40. This implies that the composition of the rod and the coating are the same such that they have the same index of refraction after consolidation. Thus, Hicks teaches away from this feature.

Additionally, Examiner's analogy of "Sue and Sam traveled in different cars" to the feature "the coating and the core structure have different dopant compositions" is simply NOT on point. It is unclear how the analogy applies to the present analysis. Regardless, Hicks NEVER discloses "the coating and the core structure have different dopant compositions" at any point in time.

In the Response to Arguments, Examiner stated: "Applicant argues that Hicks suggests that the entire core has a common composition. This may be true, but there is nothing which indicates that the coating also has that common composition." Regardless, Applicants maintain and emphasize that Hicks fails to disclose different dopant compositions for the coating and the core structure, while implying that they should be the same. In evaluating references, the standard is not what *could* be the case but what the reference *actually* discloses. For example, it does not matter that Hicks *could* disclose different compositions for the coating and the core or that the coating and the core *could* be attributed with or *could* be manipulated to present different compositions. What matters is what Hicks *actually* discloses, and Hicks does not disclose that the core and the coating have different compositions.

Since the references alone or combined fail to disclose all the features of the claimed invention, the references fail to *prima facie* render obvious claims 20, 25, 26, 39, 41, and 44-48. Accordingly, claims 20, 25, 26, 39, 41, and 44-48 are allowable over Stark in view of Miller, Berkey, and Kobayashi. Although Applicants do not acquiesce in the assertions regarding the dependent claims, these issues are not discussed further in view of the discussion of claims 20 and 31 above that makes the issues of the dependent claims presently moot.

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Claims 31-38, 43, and 48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hicks in view of Miller, Berkey, Kobayashi and Bi (US 5,958,348). With all due respect, Applicants submit that previously presented claims are not *prima facie* obvious over Stark in view of Miller, Berkey, Kobayashi, and Bi.

As discussed above, the references Stark, Miller, Berkey, and Kobayashi alone or combined fail to disclose certain features of the claimed invention common to independent claims 20 and 31, for example, "the coating having an average density that is a factor within/in the range from about 0.02 to about 0.55 of the fully densified mass density" OR "the coating comprises particles having an average primary particle diameter of no more than about 500 nm." Bi fails to remedy the deficiencies of these references because Bi also fails to disclose such features. Bi does not even mention or address the density of the coating or the diameter of the particles of the coating. Examiner applied Bi for the method steps involving a light beam NOT for these features.

Since the combined teachings of the cited references do not render the claims *prima facie* obvious, Applicants respectfully request withdrawal of the rejection of claims 31-38 and 43 under 35 U.S.C. § 103(a) as being unpatentable over the Hicks patent in view of Miller, Berkey, Kobayashi and Bi. Although Applicants do not acquiesce in the Examiner's position on the particular issues relating to the dependent claims, Applicants do not presently comment on the specific issues relating to the dependent claims since these issues are moot in view of the comments above.

CONCLUSIONS

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

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The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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